Amendments to the Claims

1. (Original) A satellite digital broadcasting receiver apparatus comprising a communication circuit for transmission and receive of apparatus management information and apparatus control information required for viewing a satellite digital broadcasting program to and from a management center apparatus for managing the apparatus management information and the apparatus control information,

wherein said communication circuit comprises a VoIP interface circuit connected to an IP (Internet Protocol) network,

wherein said VoIP interface circuit transmits data including the apparatus management information to said management center apparatus via said IP network and an access point communication apparatus using a VoIP (Voice over Internet Protocol) packet signal, and

wherein said VoIP interface circuit receives data including the apparatus control information from said management center apparatus via said access point communication apparatus, said public switched telephone network, said gateway apparatus, and said IP network using the VoIP packet signal.

2. (Original) The satellite digital broadcasting receiver apparatus as claimed in claim 1,

wherein said VoIP interface circuit transmits the data including the apparatus management information to said management center apparatus via said IP network, the gateway apparatus, the public switched telephone network, and said access point communication apparatus, and

wherein said VoIP interface circuit receives the data including the apparatus control information from said management center apparatus via said access point communication apparatus, said public switched telephone network, said gateway apparatus, and said IP network.

3. (Currently Amended) The satellite digital broadcasting receiver apparatus as claimed in claim 1 ~~or 2~~,

wherein said VoIP packet signal is constituted so that an IP header, a UDP header, and an RTP header are added to data of the apparatus management information or the apparatus control information.

4. (Currently Amended) The satellite digital broadcasting receiver apparatus as claimed in claim 1 ~~any one of claims 1 to 3~~, further comprising:

a storage device that stores a telephone number of said access point communication apparatus; and

control means for generating an address of said gateway apparatus from said telephone number,

wherein said VoIP interface circuit transmits the VoIP packet signal including the data including said apparatus management information to said gateway apparatus via said IP network using said generated address as a destination address.

5. (Currently Amended) The satellite digital broadcasting receiver apparatus as claimed in claim 1 ~~any one of claims 1 to 3~~, further comprising:

a storage device that stores a telephone number of said access point communication apparatus; and

control means for transmitting an inquiry signal including said telephone number to a predetermined server apparatus, and for receiving an address of said gateway apparatus transmitted in response to the inquiry signal,

wherein said VoIP interface circuit transmits the VoIP packet signal including the data including said apparatus management information to said gateway apparatus via said IP network using said received address as a destination address.

6. (Currently Amended) The satellite digital broadcasting receiver apparatus as claimed in claim 1 ~~any one of claims 1 to 5~~,

wherein said VoIP interface circuit divides the data including said apparatus management information to a plurality of VoIP packets, transmits the plurality of VoIP packets, and transmits a next VoIP packet signal in response to an acknowledgment signal from said management center apparatus.

7. (Original) A VoIP adapter apparatus for use in a satellite digital broadcasting receiver apparatus comprising a communication circuit that transmits and receives apparatus management information and apparatus control information required for viewing a satellite digital broadcasting program to and from a management center apparatus for managing the apparatus management information and the apparatus control information, said VoIP adapter apparatus comprising:

a telephone modem connected to said communication circuit; and

a VoIP interface circuit connected to said telephone modem and an IP (Internet Protocol) network,

wherein said VoIP interface circuit transmits data, that includes the apparatus management information and that is received from said communication circuit via said telephone modem to said management center apparatus via said IP network and an access point communication apparatus, using a VoIP (Voice over Internet Protocol) packet signal,

wherein said VoIP interface circuit receives data including the apparatus control information from said management center apparatus via said access point communication apparatus and said IP network using the VoIP packet signal, and outputs the data to the communication circuit via the telephone modem.

8. (Original) The VoIP adapter apparatus as claimed in claim 7,

wherein said VoIP interface circuit transmits the data including the apparatus management information to said management center apparatus via said IP network, a gateway apparatus, a public switched telephone network, and said access point communication apparatus, and

wherein said VoIP interface circuit receives the data including the apparatus control information from said management center apparatus via said access point communication apparatus, said public switched telephone network, said gateway apparatus, and said IP network.

9. (Currently Amended) The VoIP adapter apparatus as claimed in claim 7 ~~or 8~~, wherein said VoIP packet signal is constituted so that an IP header, a UDP header, and an RTP header are added to data of the apparatus management information or the apparatus control information.

10. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 2,

wherein said VoIP packet signal is constituted so that an IP header, a UDP header, and an RTP header are added to data of the apparatus management information or the apparatus control information.

11. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 2, further comprising:

a storage device that stores a telephone number of said access point communication apparatus; and

control means for generating an address of said gateway apparatus from said telephone number,

wherein said VoIP interface circuit transmits the VoIP packet signal including the data including said apparatus management information to said gateway apparatus via said IP network using said generated address as a destination address.

12. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 3, further comprising:

a storage device that stores a telephone number of said access point communication apparatus; and

control means for generating an address of said gateway apparatus from said telephone number,

wherein said VoIP interface circuit transmits the VoIP packet signal including the data including said apparatus management information to said gateway apparatus via said IP network using said generated address as a destination address.

13. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 2, further comprising:

a storage device that stores a telephone number of said access point communication apparatus; and

control means for transmitting an inquiry signal including said telephone number to a predetermined server apparatus, and for receiving an address of said gateway apparatus transmitted in response to the inquiry signal,

wherein said VoIP interface circuit transmits the VoIP packet signal including the data including said apparatus management information to said gateway apparatus via said IP network using said received address as a destination address.

14. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 3, further comprising:

a storage device that stores a telephone number of said access point communication apparatus; and

control means for transmitting an inquiry signal including said telephone number to a predetermined server apparatus, and for receiving an address of said gateway apparatus transmitted in response to the inquiry signal,

wherein said VoIP interface circuit transmits the VoIP packet signal including the data including said apparatus management information to said gateway apparatus via said IP network using said received address as a destination address.

15. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 2,

wherein said VoIP interface circuit divides the data including said apparatus management information to a plurality of VoIP packets, transmits the plurality of VoIP packets, and transmits a next VoIP packet signal in response to an acknowledgment signal from said management center apparatus.

16. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 3,

wherein said VoIP interface circuit divides the data including said apparatus management information to a plurality of VoIP packets, transmits the plurality of VoIP packets, and transmits a next VoIP packet signal in response to an acknowledgment signal from said management center apparatus.

17. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 4,

wherein said VoIP interface circuit divides the data including said apparatus management information to a plurality of VoIP packets, transmits the plurality of VoIP packets, and transmits a next VoIP packet signal in response to an acknowledgment signal from said management center apparatus.

18. (New) The satellite digital broadcasting receiver apparatus as claimed in claim 5,

wherein said VoIP interface circuit divides the data including said apparatus management information to a plurality of VoIP packets, transmits the plurality of VoIP packets, and transmits a next VoIP packet signal in response to an acknowledgment signal from said management center apparatus.

19. (New) The VoIP adapter apparatus as claimed in claim 8,

wherein said VoIP packet signal is constituted so that an IP header, a UDP header, and an RTP header are added to data of the apparatus management information or the apparatus control information.